

**Table 3-1.
Stationary Indoor Air Sampling Results**

School Name	Location	IndexID	Prep	Sensitivity (1/cc)	Total LA		PCME LA	
					N Struc	Conc (s/cc)	N Struc	Conc (s/cc)
Libby Elementary School	GYM	SI-00100	Direct	0.00053	0	0	0	0
	Hallway across from room 1	SI-00101	Direct	0.00053	0	0	0	0
	Room 2	SI-00102	Direct	0.00059	1	0.00059	0	0
	Hallway outside principal's office	SI-00103	Direct	0.00053	0	0	0	0
	Hallway outside room13	SI-00104	Direct	0.00054	0	0	0	0
	Room 14	SI-00105	Direct	0.00055	0	0	0	0
	Room 19	SI-00106	Direct	0.00060	0	0	0	0
	Hallway-near cafeteria	SI-00107	Direct	0.00054	0	0	0	0
	Room 25	SI-00108	Direct	0.00059	0	0	0	0
	Library	SI-00109	Direct	0.00055	0	0	0	0
Libby High School	Room 3	SI-00073	Direct	0.00056	0	0	0	0
	Outside men's room near Room 15	SI-00074	Indirect	0.00057	0	0	0	0
	Room 17	SI-00075	Direct	0.00052	0	0	0	0
	Outside library	SI-00076	Direct	0.00050	0	0	0	0
	Hallway near vending machine	SI-00077	Direct	0.00053	0	0	0	0
	Room 38	SI-00079	Direct	0.00053	0	0	0	0
	Hallway outside Room 23	SI-00080	Direct	0.00053	0	0	0	0
	Room 29C	SI-00093	Direct	0.00056	0	0	0	0
	Gym	SI-00094	Direct	0.00053	0	0	0	0
	Hallway outside women's room near Room 32	SI-00097	Direct	0.00058	0	0	0	0
Libby Middle School	Gym	SI-00061	Direct	0.00059	0	0	0	0
	Main entrance hallway	SI-00063	Direct	0.00051	0	0	0	0
	Outside Room 509	SI-00064	Direct	0.00054	0	0	0	0
	Room 503	SI-00065	Direct	0.00060	0	0	0	0
	Room 306	SI-00066	Direct	0.00060	0	0	0	0
	Outside Room 409	SI-00067	Direct	0.00054	0	0	0	0
	Between Rooms 306 & 307	SI-00068	Direct	0.00053	0	0	0	0
	By Room 210 common area	SI-00069	Direct	0.00051	1	0.00051	0	0
	Room 207	SI-00070	Direct	0.00059	0	0	0	0
	Room 601; computer lab	SI-00071	Direct	0.00057	0	0	0	0
Libby Public Schools Admin. Building	Superintendent's office	SI-00081	Direct	0.00059	0	0	0	0
	Lower Level Hallway	SI-00082	Direct	0.00058	0	0	0	0
	Business office	SI-00083	Direct	0.00058	0	0	0	0
	Lower level stairway	SI-00084	Direct	0.00058	0	0	0	0
	Upper level office, central stairway	SI-00085	Direct	0.00058	0	0	0	0
	Upstairs hallway	SI-00086	Direct	0.00059	0	0	0	0
	Student break room	SI-00087	Direct	0.00056	0	0	0	0
	Classroom 7	SI-00088	Indirect	0.00057	0	0	0	0
	Classroom 11	SI-00089	Direct	0.00058	0	0	0	0
	Classroom 13	SI-00090	Direct	0.00058	0	0	0	0
Kootenai Valley Head Start	NE Gym	SI-00028	Direct	0.00056	0	0	0	0
	SW Gym	SI-00029	Direct	0.00060	0	0	0	0
	Hallway near main entry (West)	SI-00030	Direct	0.00059	0	0	0	0
	Hallway in front of room #2	SI-00031	Direct	0.00059	0	0	0	0
	Room 2	SI-00032	Direct	0.00054	0	0	0	0
	Room 3	SI-00041	Direct	0.00056	0	0	0	0
	Central Hallway (outside W. girls restroom)	SI-00042	Direct	0.00058	0	0	0	0
	Room 9	SI-00043	Direct	0.00059	0	0	0	0
	Room 10	SI-00044	Direct	0.00059	0	0	0	0
	E. end of Hallway	SI-00045	Direct	0.00052	0	0	0	0

Note: One sample (SI-00078) appeared to have been tampered with because it contained a chalk-like substance. This sample was replaced with SI-00097.

Table 4-1.
Outdoor Activity Scenario Areas and Activities

Schoo Name	Receptor Group	Age	Sample Cassette Height	Scenario	Location	Activity	% of Activity Time	Number of Participants	Number of Events	Number of Filters Collected	Number of Filters Analyzed	Number of Filters Archived
Kootenai Valley Head Start	Students	Pre-kindergarten; 3-4 year olds	34 inches	1	Soccer field	Soccer	100%	3	3	9	3	6
				2	South playground	Swinging General Use- Playground	50% 50%	3	3	9	3	6
	Maintenance Worker	Adult	Adult Breathing Zone	1	School-wide	Digging	20%	1	3	3	3	0
					School-wide	Raking	40%					
					Sidewalks	Sweeping	40%					
				2	School-wide	Mowing Weed Trimming	90% 10%	1	3	3	3	0
	Libby Elementary School	Students	Kindergarten-Grade 3; 5-8 year olds	42 inches	1	Soccer field	Soccer	100%	3	3	9	3
2					North playground	Swinging General-use playground	25% 25%	3	3	9	3	6
					South playground	Swinging General Use- Playground	25% 25%					
					3	Walking path	Walking					
Maintenance Worker		Adult	Adult Breathing Zone	1	School-wide	Digging	20%	1	3	3	3	0
					School-wide	Raking	40%					
					Blacktop and sidewalks	Sweeping	40%					
2	School-wide	Mowing Weed Trimming	90% 10%	1	3	3	3	0				
Libby Middle School	Students	Grades 4-8; 9-13 year olds	52 inches	1	Soccer field	Soccer	50%	3	3	9	3	6
					Paved and gravel playgrounds	Swinging General Use- Playground	25% 25%					
					2	Football field	Soccer					
				Northeast field	Baseball Frisbee	15% 15%						
	Maintenance Worker	Adult	Adult Breathing Zone	1	School-wide	Digging	20%	1	3	3	3	0
					School-wide	Raking	40%					
					Blacktop, track, amphitheater, and sidewalks	Sweeping	40%					
2	School-wide	Mowing Weed Trimming	90% 10%	1	3	3	3	0				
Libby High School	Students	Grades 9-12; 14-18 year olds	Adult Breathing Zone	1	North PE field	General use- field General use- sandpit	20% 10%	3	3	9	3	6
					South PE field	Soccer	70%					
					2	Varsity field	Football					
				Practice field	Football	75%						
	Maintenance Worker	Adult	Adult Breathing Zone	1	School-wide	Digging	20%	1	3	3	3	0
					School-wide	Raking	40%					
					Track	Leaf Blower	23%					
2	School-wide	Sweeping	17%									
Libby Administration Building	Students	Grades 8-12; 13-18 year olds	Adult Breathing Zone	1	South Field	Swinging	50%	3	3	9	3	6
						General Use- Playground	50%					
	Maintenance Worker	Adult	Adult Breathing Zone	1	School-wide	Digging	20%	1	3	3	3	0
						Raking	40%					
					Sidewalks	Sweeping	40%					
	2	School-wide	Mowing	90%	1	3	3	3	0			
	Weed Trimming	10%										
Libby High School and Libby Administration Building	Maintenance Worker	Adult	Adult Breathing Zone	1	Parking lots	Walk Behind Sweeper	100%	1	3	3	3	0

Table 4-2.
Outdoor ABS Air Sampling Results

School Name	IndexID	Sample Task Desc.	Sample Date	Prep	Sensitivity (1/cc)	Total LA		PCME LA	
						N Struc	Conc (s/cc)	N Struc	Conc (s/cc)
Libby Elementary School	SE-00041	Dig/Rake/Sweep	8/4/09	Direct	0.0029	0	0	0	0
	SE-00119	Dig/Rake/Sweep	8/19/09	Direct	0.0030	0	0	0	0
	SE-00191	Dig/Rake/Sweep	9/1/09	Indirect	0.0028	0	0	0	0
	SE-00036	Mow/Edge	8/3/09	Direct	0.0029	0	0	0	0
	SE-00117	Mow/Edge	8/19/09	Direct	0.0028	0	0	0	0
	SE-00211	Mow/Edge	9/2/09	Indirect	0.0034	0	0	0	0
	SE-00046	Generic Play/Swing	8/4/09	Indirect	0.0112	0	0	0	0
	SE-00110	Generic Play/Swing	8/18/09	Indirect	0.0235	0	0	0	0
	SE-00197	Generic Play/Swing	9/2/09	Indirect	0.0389	1	0.039	1	0.039
	SE-00029	Soccer	8/3/09	Direct	0.0029	0	0	0	0
	SE-00114	Soccer	8/19/09	Direct	0.0028	0	0	0	0
	SE-00183	Soccer	9/1/09	Indirect	0.0031	0	0	0	0
	SE-00049	Walking	8/5/09	Direct	0.0027	0	0	0	0
	SE-00096	Walking	8/17/09	Direct	0.0028	0	0	0	0
	SE-00223	Walking	9/3/09	Direct	0.0028	0	0	0	0
Libby High School	SE-00011	Dig/Rake/Sweep	7/30/09	Direct	0.0026	0	0	0	0
	SE-00127	Dig/Rake/Sweep	8/20/09	Direct	0.0030	0	0	0	0
	SE-00163	Dig/Rake/Sweep	8/27/09	Indirect	0.0028	0	0	0	0
	SE-00020	Mow	8/2/09	Direct	0.0028	0	0	0	0
	SE-00129	Mow/Edge	8/20/09	Direct	0.0030	0	0	0	0
	SE-00159	Mow/Edge	8/26/09	Indirect	0.0019	0	0	0	0
	SE-00089	Football	8/11/09	Direct	0.0027	0	0	0	0
	SE-00156	Football	8/26/09	Direct	0.0025	0	0	0	0
	SE-00167	Football	8/27/09	Indirect	0.0025	1	0.0025	1	0.0025
	SE-00025	Soccer/generic field	8/2/09	Direct	0.0027	0	0	0	0
	SE-00125	Soccer/generic field	8/20/09	Direct	0.0029	0	0	0	0
	SE-00172	Soccer/generic field	8/28/09	Direct	0.0024	0	0	0	0
Libby Middle School	SE-00052	Dig/Rake/Sweep	8/5/09	Direct	0.0027	0	0	0	0
	SE-00153	Dig/Rake/Sweep	8/25/09	Direct	0.0023	0	0	0	0
	SE-00231	Dig/Rake/Sweep	9/8/09	Indirect	0.0028	1	0.0028	0	0
	SE-00061	Mow/Edge	8/6/09	Direct	0.0029	0	0	0	0
	SE-00149	Mow/Edge	8/25/09	Indirect	0.0039	0	0	0	0
	SE-00243	Mow/Edge	9/9/09	Indirect	0.0029	0	0	0	0
	SE-00059	Soccer/Frisbee/Baseball	8/6/09	Direct	0.0025	0	0	0	0
	SE-00143	Soccer/Frisbee/Baseball	8/24/09	Direct	0.0028	0	0	0	0
	SE-00242	Soccer/Frisbee/Baseball	9/9/09	Direct	0.0027	0	0	0	0
	SE-00067	Soccer/Swing/Generic Play	8/7/09	Indirect	0.0120	0	0	0	0
	SE-00146	Soccer/Swing/Generic Play	8/25/09	Indirect	0.0028	0	0	0	0
	SE-00236	Soccer/Swing/Generic Play	9/8/09	Indirect	0.0107	1	0.011	1	0.011
Libby Public Schools Admin. Building	SE-00069	Dig/Rake/Sweep	8/7/09	Direct	0.0030	0	0	0	0
	SE-00132	Dig/Rake/Sweep	8/21/09	Direct	0.0027	0	0	0	0
	SE-00214	Dig/Rake/Sweep	9/2/09	Direct	0.0024	0	0	0	0
	SE-00081	Mow/Edge	8/10/09	Direct	0.0029	0	0	0	0
	SE-00140	Mow/Edge	8/24/09	Direct	0.0027	0	0	0	0
	SE-00228	Mow/Edge	9/3/09	Indirect	0.0029	0	0	0	0
	SE-00079	Generic Play/Swing	8/10/09	Indirect	0.0028	0	0	0	0
	SE-00136	Generic Play/Swing	8/21/09	Direct	0.0028	0	0	0	0
	SE-00225	Generic Play/Swing	9/3/09	Direct	0.0028	0	0	0	0
Kootenai Valley Head Start	SE-00103	Dig/Rake/Sweep	8/18/09	Direct	0.0029	0	0	0	0
	SE-00188	Dig/Rake/Sweep	8/31/09	Direct	0.0024	0	0	0	0
	SE-00254	Dig/Rake/Sweep	9/11/09	Indirect	0.0028	0	0	0	0
	SE-00098	Mow/Edge	8/17/09	Direct	0.0027	0	0	0	0
	SE-00189	Mow/Edge	8/31/09	Direct	0.0022	1	0.0022	1	0.0022
	SE-00247	Mow/Edge	9/10/09	Direct	0.0027	0	0	0	0
	SE-00004	Generic Play/Swing	7/30/09	Indirect	0.0097	0	0	0	0
	SE-00093	Generic Play/Swing	8/17/09	Direct	0.0029	0	0	0	0
	SE-00260	Generic Play/Swing	9/11/09	Indirect	0.0216	0	0	0	0
	SE-00106	Soccer	8/18/09	Direct	0.0027	0	0	0	0
	SE-00180	Soccer	8/31/09	Direct	0.0024	0	0	0	0
	SE-00251	Soccer	9/10/09	Indirect	0.0029	0	0	0	0

**Table 4-3.
Soil Sample Locations**

School Name	Locations	N Samples
Kootenai Valley Head Start	1) Soccer field	2
	2) School-wide	2
	3) Digging sites	3
Libby Elementary School	1) Soccer field	2
	2) South playground	2
	3) School-wide	2
	4) Digging sites	3
Libby Middle School	1) Soccer field	2
	2) Football field and northeast field	2
	3) School-wide	2
	4) Digging sites	3
Libby High School	1) North and south fields	2
	2) Football field and practice field	2
	3) School-wide	2
	4) Digging sites	3
Libby Administration Building	1) South field	2
	2) School-wide	2
	3) Digging sites	3

**Table 4-4.
Soil Sampling Results**

School Name	IndexID	Sample Location	Sample Date Begin	PLM Result	Visible Vermiculite			
					None	Low	Medium	High
Libby Elementary School	SE-00121	Back Yard	8/19/09	Tr	2	0	0	0
	SE-00193	Back yard	9/1/09	ND	2	0	0	0
	SE-00043	Back/Front Yard	8/4/09	Tr	2	0	0	0
	SE-00037	Back Yard	8/3/09	Tr	29	1	0	0
	SE-00195	Back yard	9/1/09	ND	30	0	0	0
	SE-00039	Back Yard	8/3/09	ND	30	0	0	0
	SE-00194	Back yard	9/1/09	ND	30	0	0	0
	SE-00038	Back/Front/Side Yard	8/3/09	Tr	29	1	0	0
	SE-00200	Back/Front/Side yard	9/2/09	Tr	30	0	0	0
Libby High School	SE-00013	Front Yard/Back Yard	7/30/09	Tr	2	0	0	0
	SE-00126	Back Yard (a)	8/20/09	Tr	2	0	0	0
	SE-00165	Back/Front yard (a)	8/27/09	Tr	2	0	0	0
	SE-00016	Back Yard	7/31/09	Tr	28	2	0	0
	SE-00176	Back yard	8/28/09	Tr	30	0	0	0
	SE-00015	Back/Front/Side Yard	7/31/09	Tr	29	1	0	0
	SE-00177	Back/ Front/Side yard	8/28/09	Tr	30	0	0	0
	SE-00014	Side Yard	7/31/09	Tr	30	0	0	0
	SE-00161	Side yd	8/26/09	Tr	30	0	0	0
Libby Middle School	SE-00054	Side Yard (a)	8/5/09	Tr	2	0	0	0
	SE-00151	Back yard (a)	8/25/09	ND	2	0	0	0
	SE-00233	Front/Side yard (a)	9/8/09	Tr	2	0	0	0
	SE-00063	Back/Front/Side Yard	8/6/09	Tr	30	0	0	0
	SE-00245	Back/Front/Side Yard	9/9/09	Tr	30	0	0	0
	SE-00055	Front Yard	8/5/09	ND	30	0	0	0
	SE-00234	Front yard	9/8/09	Tr	30	0	0	0
	SE-00056	Side Yard	8/5/09	Tr	30	0	0	0
	SE-00235	Side yard	9/8/09	ND	30	0	0	0
Libby Public Schools Admin. Building	SE-00071	Side Yard (a)	8/7/09	Tr	2	0	0	0
	SE-00134	Side yard (a)	8/21/09	ND	2	0	0	0
	SE-00216	Side yard (a)	9/2/09	Tr	2	0	0	0
	SE-00072	Side Yard	8/7/09	Tr	29	1	0	0
	SE-00219	Side yard	9/2/09	Tr	30	0	0	0
	SE-00073	Side Yard	8/7/09	Tr	30	0	0	0
	SE-00217	Side yard	9/2/09	ND	30	0	0	0
Kootenai Valley Head Start	SE-00104	Back/Front Yard (a)	8/18/09	Tr	1	1	0	0
	SE-00186	Back yard (a)	8/31/09	ND	2	0	0	0
	SE-00256	Back/Side yard (a)	9/11/09	Tr	2	0	0	0
	SE-00105	Back/Front/Side Yard	8/18/09	Tr	30	0	0	0
	SE-00252	Back yard	9/10/09	Tr	30	0	0	0
	SE-00100	Side Yard	8/17/09	Tr	30	0	0	0
	SE-00257	Back/Front/Side yard	9/11/09	Tr	30	0	0	0

(a) Sample collected at digging locations.

Table 5-1.
Indoor Air Exposure Point Concentrations

School Name	Concentration (s/cc)
Kootenai Valley Head Start	< 0.00057
Libby Elementary School	< 0.00056
Libby Middle School	< 0.00056
Libby High School	< 0.00054
Libby Admin. Building	< 0.00058

PCME = phase contrast microscopy equivalent

s/cc = structures per cubic centimeter

Table 5-2.
Outdoor ABS Air Exposure Point Concentrations

School Name	Exposure Point Concentration (PCME s/cc)			
	Student	Maintenance Worker	Lawn Mower	Power Sweeper
Kootenai Valley Head Start	< 0.0064	< 0.0027	0.00074	NA
Libby Elementary School	0.0043	< 0.0029	< 0.0031	NA
Libby Middle School	0.0018	< 0.0026	< 0.0032	NA
Libby High School	0.00041	< 0.0028	< 0.0026	< 0.0094
Libby Admin. Building	< 0.0028	< 0.0027	< 0.0028	< 0.0094

PCME = phase contrast microscopy equivalent

s/cc = structures per cubic centimeter

NA = not applicable

Table 5-3.
Indoor Exposure Parameters

Parameter	Students	Teachers
ET (hrs/day)	7	8
EF (days/yr)	200	210
TWF	0.16	0.19

ET = exposure time

EF = exposure frequency

TWF = time-weighting factor

**Table 5-4.
Outdoor Exposure Parameters**

School Name	Students			Maintenance Workers			Lawn Mowing			Power Sweeping		
	ET hrs/day	EF days/yr	TWF	ET hrs/day	EF days/yr	TWF	ET hrs/day	EF days/yr	TWF	ET hrs/day	EF days/yr	TWF
Kootenai Valley Head Start	0.5	128	0.0073	1	128	0.015	10	22	0.025	NA	NA	NA
Libby Elementary School	2	180	0.041	1.5	260	0.045	10	22	0.025	NA	NA	NA
Libby Middle School	1.6	90	0.016	0.5	260	0.015	10	22	0.025	NA	NA	NA
Libby High School	0.67	45	0.0034	1	260	0.030	10	22	0.025	2	22	0.005
Libby Admin. Building	0.75	180	0.015	1.5	260	0.045	10	22	0.025	2	22	0.005

ET = exposure time

EF = exposure frequency

TWF = time weighting factor

NA = not applicable

**Table 5-5.
Inhalation Unit Risks**

Receptor	School Name	a (years)	d (years)	IUR _{a,d} (PCME s/cc) ⁻¹
Students	Kootenai Valley Head Start	3	2	1.80E-02
	Libby Elementary School	5	6	4.56E-02
	Libby Middle School	11	3	1.94E-02
	Libby High School	14	4	2.26E-02
	Libby Admin. Building	13	6	3.35E-02
Teachers	All	20	25	6.90E-02
Maintenance Workers, Lawn Mower, Power Sweeper	All	20	25	6.90E-02

a = age at first exposure for the scenario being evaluated

d = duration of the exposure scenario being evaluated

IUR_{a,d} = Inhalation unit risk for an exposure that begins at age "a" and lasts for duration "d" (PCME s/cc)⁻¹

**Table 5-6.
Screening Level Risk Estimates**

School Name	Receptor	EPC (PCME s/cc)		TWF		IUR _{a,d} (PCME s/cc) ⁻¹	Excess Cancer Risk		
		Indoor	Outdoor	Indoor	Outdoor		Indoor	Outdoor	Combined
Kootenai Valley Head Start	Student	< 0.00057	< 0.0064	0.16	0.0073	0.02	< 2E-06	< 8E-07	< 2E-06
	Teacher	< 0.00057	NA	0.19	NA	0.07	< 8E-06	NA	< 8E-06
	Maintenance Worker	NA	< 0.0027	NA	0.015	0.07	NA	< 3E-06	< 3E-06
	Lawn Mower	NA	0.00074	NA	0.025	0.07	NA	1E-06	1E-06
Libby Elementary School	Student	< 0.00056	0.0043	0.16	0.041	0.05	< 4E-06	8E-06	< 1E-05
	Teacher	< 0.00056	NA	0.19	NA	0.07	< 7E-06	NA	< 7E-06
	Maintenance Worker	NA	< 0.0029	NA	0.045	0.07	NA	< 9E-06	< 9E-06
	Lawn Mower	NA	< 0.0031	NA	0.025	0.07	NA	< 5E-06	< 5E-06
Libby Middle School	Student	< 0.00056	0.0018	0.16	0.016	0.02	< 2E-06	6E-07	< 2E-06
	Teacher	< 0.00056	NA	0.19	NA	0.07	< 7E-06	NA	< 7E-06
	Maintenance Worker	NA	< 0.0026	NA	0.015	0.07	NA	< 3E-06	< 3E-06
	Lawn Mower	NA	< 0.0032	NA	0.025	0.07	NA	< 6E-06	< 6E-06
Libby High School	Student	< 0.00054	0.00041	0.16	0.0034	0.02	< 2E-06	3E-08	< 2E-06
	Teacher	< 0.00054	NA	0.19	NA	0.07	< 7E-06	NA	< 7E-06
	Maintenance Worker	NA	< 0.0028	NA	0.030	0.07	NA	< 6E-06	< 6E-06
	Lawn Mower	NA	< 0.0026	NA	0.025	0.07	NA	< 4E-06	< 4E-06
	Power Sweeper	NA	< 0.0094	NA	0.025	0.07	NA	< 2E-05	< 2E-05
Libby Admin. Building	Student	< 0.00058	< 0.0028	0.16	0.015	0.03	< 3E-06	< 1E-06	< 5E-06
	Teacher	< 0.00058	NA	0.19	NA	0.07	< 8E-06	NA	< 8E-06
	Maintenance Worker	NA	< 0.0027	NA	0.045	0.07	NA	< 8E-06	< 8E-06
	Lawn Mower	NA	< 0.0028	NA	0.025	0.07	NA	< 5E-06	< 5E-06
	Power Sweeper	NA	< 0.0094	NA	0.025	0.07	NA	< 2E-05	< 2E-05

NA = not applicable, receptor not evaluated for this scenario

EPC = exposure point concentration

TWF = time weighting factor

IUR = inhalation unit risk

Table 6-1.
Impact Assessment for Field and Laboratory Modifications

Type	Number	Effective Date	Description	Impact on Data Evaluation
SAP Mods	LFO-000146	4/20/2009	This modification details the actual sample locations for each of the stationary air pumps used in the school sampling. The figures are revisions to the figures presented in the SAP. These changes were necessary to ensure sample collection did not interfere with normal school activities or create unnecessary health and safety hazards.	None.
Lab Mods	LB-000016	4/23/2003	Clarify ISO 10312 counting rules.	None.
	LB-000019	1/21/2003	Standardize the recording format of grid openings where no countable structures are seen ("ND").	None.
	LB-000028	6/17/2003	Standardize the selection of additional grids for reanalysis of TEM samples.	None.
	LB-000029	4/25/2007	Standardize the frequency of preparation of laboratory QC samples by TEM and provide procedures for interpretation of results.	None.
	LB-000030	8/14/2003	Standardize procedure used for recording sketches of asbestos structures.	None.
	LB-000031	1/27/2004	Laboratory-specific clarification of potential inconsistencies among analysts when recording structures using AHERA/ASTM, as modified by LB-000017, LB-000017A, and LB-000031.	None.
	LB-000053	12/12/2006	Summarize which samples are considered "investigative" and "non-investigative" (based on the Index ID prefix code). For air, all "investigative" samples shall require ashing as part of indirect preparation procedures. For dust, ashing will be incorporated opportunistically as part of the indirect preparation procedures as determined necessary by the analyst.	Ashing is expected to increase accuracy by eliminating organic debris and making it easier to detect and characterize LA structures. However, see Note [A].
	LB-000066	2/28/2007	Require all laboratories to provide information on the elemental composition of particles classified as LA, with the primary focus on sodium (Na) and potassium (K).	None.
	LB-000084	1/29/2008	Modify the counting rules for all TEM analysis methodologies as they pertain to the presence of abundant chrysotile.	None.
	LB-000085	4/2/2008	Laboratories shall perform analysis of a reference standard to calibrate the energy dispersive x-ray spectrometry (EDS) analysis.	None.

Notes:

[A] For chrysotile, indirect preparation is known to increase structure counts due to dispersion of bundles and clusters. However, for LA, most structures occur as free fibers, and bundles and clusters are not common. Thus, indirect preparation at the Libby site is not believed to be a significant source of bias.